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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/523,084	08/25/2005	Yoichi Nakanishi	15115/153001	8516
22511	7590	12/17/2007	EXAMINER	
OSHA LIANG L.L.P. 1221 MCKINNEY STREET SUITE 2800 HOUSTON, TX 77010			TRAN, HOANG Q	
			ART UNIT	PAPER NUMBER
			2874	
			NOTIFICATION DATE	DELIVERY MODE
			12/17/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@oshaliang.com  
buta@oshaliang.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/523,084	<b>Applicant(s)</b> NAKANISHI ET AL.	
	<b>Examiner</b> Hoang Tran	<b>Art Unit</b> 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 October 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 9-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 9-29 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 9, 13, 15, 19, 21, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Chen (US 6,968,099).

In terms of claims 1-3 Chen discloses an optical switch comprising: an incident side light transmitting member constructed by a plurality of incident side optical fibers (41,42); an emitting side light transmitting member constructed by a plurality emitting side optical fibers respectively arranged so as to be opposed to the respective incident side optical fibers (51,52); at least one preliminary optical fiber operable to function as one of the incident side optical fiber and the emitting side optical fiber; reflection means [61] comprising a single movable reflection member (Claim 8) that is operable to transmit an optical signal between the preliminary optical fiber and the other optical fibers each of the plurality of emitting side optical fibers or each of the plurality of incident side optical fibers (Figure 5,6,7; and driving means (63) for moving the reflection means so as to be able to position the reflection means with respect to one of the optical fibers.

Regarding claims 9, 15, and 21, Figure 5,6, and 7 demonstrates the functions of the reflective means are moved into a position wherein the optical path is not interrupted by the reflectors.

Regarding claims 13, 19, and 25 are not given patentable weight since the claimed limitation is in the product-by-process form. Since the prior art anticipates the reflection means having the function as claimed, the process of making the reflection means has no patentable weight in a product claim.

Regarding Claims 27-30, Figure 5, 6, and 7 teaches the upward and downward state of the device.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 11, 14, 16, 17, 20, 22, 23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Kim et al. (US 2002/0196999 A1).

Chen disclosed the invention of claims 1-3, however, Chen does not explicitly disclose, the optical switch driving means is a stepping motor further comprising collimating lens wherein the optical switch is assembled in a single casing.

Kim discloses an optical switch having plurality of input fibers (24) and a plurality of output fibers (22) wherein the means for moving the movable reflective means is step motors (Para [0031]). Furthermore, Kim discloses collimating lens is provided to

selectively focus the transmitting signal between the aligning fibers (Para [0024]) wherein the device is aligned in a casing (Fig. 4).

It would have been obvious to one having ordinary skill in the art to recognize the teaching of Kim can modify the optical switch of Chen since Kim and Chen are from the same field of endeavor. **The motivation** for the using a step motor to move the reflective means is for its compact size such the it can be fitted within a casing for the purpose of packaging the optical switch in a single device for ease of integration with other optical devices.

Claims 12, 18, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chen in view of Chen et al. (US 6,647,173 B2)

Chen disclosed the invention of claims 1-3, however, Chen does not disclose the fibers and the reflective means are movable.

Chen disclosed that the moving of fibers and reflective means are movable in an optical switch having stringent tolerance requirement. It would have been obvious to one having ordinary skill in the art to recognize that placing the aligned fibers on the same movable substrate as the reflective means and moving the substrates allow the fibers and reflector to move by a single driving motor since Chen discloses the **motivation** is to reduce the stringent tolerance requirement when moving a fiber separately (col. 1, lines 5-65).

### ***Response to Arguments***

Applicant's arguments filed 01/04/2007 have been fully considered. Applicant newly amended Claims have been reject base on new art and new grounds of rejection to the prior art of Chen.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Tran whose telephone number is 571-272-5049. The examiner can normally be reached on 9:00AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hoang Tran  
AU 2874  
December 07, 2007

/Kevin S. Wood/  
Kevin S. Wood  
Primary Patent Examiner  
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